




## REFERENCE 37

### MEMORANDUM

Date: November 17, 2020

To: Linda Ader, START-IV Team Leader, WSP USA, Inc., Seattle, WA

From: Mark Woodke, START-IV Chemist, WSP USA, Inc., Seattle, WA 

Subject: Data Bias Assignments  
USACE Bradford Island  
Cascade Locks, Oregon

Ref: Contract Number: EP-S7-13-07  
Task Order, Subtask Number: TO-68HE0720F0023

The *Bradford Island, Cascade Locks, Oregon, Upland and River Operable Units, Remedial Investigation Report*, prepared by URS in June 2012 for the United States Army Corps of Engineers (USACE), Portland District, contains analytical data from investigation activities that have taken place over the past 10 years since the remedial investigation (RI) report was written (i.e., approximately the period from 2002 to 2012); including new sampling work conducted during the RI in 2007 and 2009 to fill identified data gaps. This report is included in the Hazard Ranking System (HRS) Documentation Record for this site as Reference 4 and will be referred to as Ref. 4 within this memorandum. In some cases, analytical results contained within the RI report have a “J” qualifier. These estimated data do not have associated bias determinations. The purpose of this memorandum is to provide these biases based on a review of data validation summaries provided in Reference 4.

Tables 1 through 7 below contain summaries of J-qualified data used in the USACE Bradford Island HRS Documentation Record. Data biases for these results have been determined and were added to these tables. Biases were assigned as follows:

- **Table 1 - Phase II Supplemental Landfill Site Investigation (Inspection) 2001/2002 Gully Test Pit Soil Samples:** Copper and nickel J-qualified data associated with sample BIL14 011016BIL14SS received a bias of L (low) since the associated matrix spike results were below QC limits (Ref. 4, pp. 8619 and 138849). Lead J-qualified data associated with sample BIL14 011016BIL14SS received a bias of H (high) since the associated matrix spike results were above QC limits (Ref. 4, pp. 8620 and 138849). Mercury, toluene, and bis(2-ethylhexyl)phthalate J-qualified data associated with sample BIL14 011016BIL14SS received a bias of Q (result between the practical quantitation limit [PQL] and the method reporting limit [MRL]) since the associated sample results were between the practical quantitation limits and the method reporting limits (Ref. 4, pp. 8621, 8450, and 8474). Copper J-qualified data associated with sample BIL13 011016BIL13SS received a bias of L (low) since the associated matrix spike results were below QC limits (Ref. 4, pp. 8616 and 138849). Lead J-qualified data associated with

sample BIL13 011016BIL13SS received a bias of H (high) since the associated matrix spike results were above QC limits (Ref. 4, pp. 8617 and 138849). Lead J-qualified data associated with sample BIL17 011016BIL17SS received a bias of H (high) since the associated matrix spike results were above QC limits (Ref. 4, pp. 8629 and 138849). Lead J-qualified data associated with sample BIL18 011016BIL18SS received a bias of H (high) since the associated matrix spike results were above QC limits (Ref. 4, pp. 8631 and 138849). Nickel J-qualified data associated with sample BIL18 011016BIL18SS received a bias of L (low) since the associated matrix spike results were below QC limits (Ref. 4, pp. 8631 and 138849). Chrysene J-qualified data associated with sample BIL18 011016BIL18SS received a bias of K (unknown) since the associated continuing calibration % D was greater than QC limits, but it is unknown if the result was greater than or less than QC limits (Ref. 4, pp. 8483 and 138848). Lead J-qualified data associated with sample BIL19 011016BIL19SS received a bias of H (high) since the associated matrix spike results were above QC limits (Ref. 4, pp. 8635 and 138849). Nickel J-qualified data associated with sample BIL19 011016BIL19SS received a bias of L (low) since the associated matrix spike results were below QC limits (Ref. 4, pp. 8634 and 138849). Lead J-qualified data associated with sample BIL21 011016BIL21SS received a bias of H (high) since the associated matrix spike results were above QC limits (Ref. 4, pp. 8640 and 138849). Nickel J-qualified data associated with sample BIL21 011016BIL21SS received a bias of L (low) since the associated matrix spike results were below QC limits (Ref. 4, pp. 8640 and 138849).

- **Table 2 - Phase II Supplemental Landfill Site Investigation (Inspection) 2001/2002 Mercury Vapor-Lamp and Lead Hot Spot Test Pit Soil Samples:** Copper J-qualified data associated with sample BIL08 011016BIL08SS received a bias of L (low) since the associated matrix spike results were below QC limits (Ref. 4, pp. 8600 and 138849). Lead J-qualified data associated with sample BIL08 011016BIL08SS received a bias of H (high) since the associated matrix spike results were above QC limits (Ref. 4, pp. 8601 and 138849). Copper J-qualified data associated with sample BIL07 011016BIL07SS received a bias of L (low) since the associated matrix spike results were below QC limits (Ref. 4, pp. 8597 and 138849). Lead J-qualified data associated with sample BIL07 011016BIL07SS received a bias of H (high) since the associated matrix spike results were above QC limits (Ref. 4, pp. 8598 and 138849). Lead J-qualified data associated with sample BIL09 011016BIL09SS received a bias of H (high) since the associated matrix spike results were above QC limits (Ref. 4, pp. 8604 and 138849). Lead J-qualified data associated with samples BIL24 011017BIL24SS, BIL26 011017BIL26SS, and BIL27 011017BIL27SS received a bias of H (high) since the associated matrix spike results were above QC limits (Ref. 4, pp. 449, 8609, 8611, 8612, and 138849).

**Table 3 – USACE Upland Source Evaluation 2007 North Slope Soil Samples:** Lead J-qualified data associated with sample BIL05USE 070410BIL05SS received a bias of L (low) since the associated matrix spike/matrix spike duplicate results were below QC limits (Ref. 4, pp. 48122, 138887, and 138890).

**Table 4 – Upland OU Data Gaps Report 2009 Gully Area Soil Samples:** Acenaphthene, acenaphthylene, anthracene, fluorene, naphthalene, and dibenz(a,h)

anthracene J-qualified data associated with sample R-03 090128-R-R3-0-0.5so received a bias of Q (result between the PQL and the MRL) since the associated sample results were between the practical quantitation limits and the method reporting limits (Ref. 4, p. 137495).

**Table 5 – URS PA/SI 2001 Sandblast Grit/Soil Samples:** Zinc J-qualified data associated with sample SBB18 011205SBB received a bias of L (low) since the associated matrix spike result was below QC limits (Ref. 4, pp. 1490, 1731, and 138849). Lead J-qualified data associated with sample SBB03 011205SBB03SBG received a bias of H (high) since the matrix spike result was greater than QC limits (Ref. 4, pp. 1501 and 1744). Tributyltin J-qualified data associated with sample SBB03 011205SBB03SBG received a bias of K (unknown) since the duplicate and matrix spike results was outside QC limits (Ref. 4, pp. 1256 and 1623). Lead J-qualified data associated with samples SBB06 011206SBB06SBG, SBB10 011205SBB10SBG, SBB11 011205SBB11SBG, SBB12 011205SBB12SBG, SBB14 011205SBB14SBG, SBB15 011205SBB15SBG, SBB15 011205SBB21SS, SBB17 01120SBB17SBG, and SBB18 01120SBB18SBG received a bias of H (high) since the associated matrix spike results were above QC limits (Ref. 4, pp. 465, 1503, 1511, 1513, 1515, 1519, 1521, 1531, 1525, and 1527). Dibutyltin J-qualified data associated with sample SBB18 01120SBB18SBG received a bias of K (unknown) since the associated duplicate relative percent difference was outside QC limits (but it is unknown if the result was greater than or less than QC limits) and matrix spike results were below QC limits (Ref. 4, pp. 1271 and 1623). Monobutyltin and tributyltin J-qualified data associated with sample SBB18 01120SBB18SBG received a bias of H (high) since the associated system monitoring compound results were greater than QC limits (Ref. 4, pp. 1198 and 1271).

**Table 6 – Upland OU Data Gaps Report 2009 Equipment Laydown Area Soil Samples:** Mercury J-qualified data associated with sample LD-04 090320-LD4so-0-1 received a bias of Q (result between the PQL and the MRL) since the associated sample results were between the practical quantitation limits and the method reporting limits (Ref. 4, p. 131413). Zinc J-qualified data associated with sample LD-04 090320-LD4so-0-1 received a bias of H (high) since the associated matrix spike results were greater than QC limits (Ref. 4, pp. 131413 and 131440). 4,4-DDT, acenaphthene, and anthracene J-qualified data associated with sample LD-04 090320-LD4So-0-1 received a bias of Q (result between the PQL and the MRL) since the associated sample results were between the practical quantitation limits and the method reporting limits (Ref. 4, pp. 132267 and 131373). Zinc J-qualified data associated with sample LD-04 090320-LD4So-1-3 received a bias of H (high) since the associated matrix spike results were greater than QC limits (Ref. 4, p. 131414 and 131440). Bis(2-ethylhexyl)phthalate, chrysene, and pyrene J-qualified data associated with sample LD-04 090320-LD4So-1-3 received a bias of Q (result between the PQL and the MRL) since the associated sample results were between the practical quantitation limits and the method reporting limits (Ref. 4, p. 134376). Zinc and dibenz(a,h)anthracene J-qualified data associated with sample LD-02 090320-LD2So-0-1 received a bias of H (high) since the associated matrix spike results were greater than QC limits (Ref. 4, pp. 131417, 134386, 134414, and 131440).

**Table 7 – URS Upland OU Data Gaps Report 2009 Equipment Laydown Area Soil Samples:** Lead J-qualified data associated with samples SB-04 <250 mm 090127-SB-SB4-1-3S and SB-04 < 2mm 090127-SB-SB4-1-3So received a bias of Q (result between the PQL and the MRL) since the associated sample results were between the PQL and the MRL (Ref. 4, pp. 514, 135940, and 135939).

**References:**

United States Environmental Protection Agency (EPA), January 2017a, *National Functional Guidelines for Inorganic Superfund Methods Data Review*, OLEM 9355.0-135, EPA-540-R-2017-001.

\_\_\_\_\_, January 2017b, *National Functional Guidelines for Organic Superfund Methods Data Review*, OLEM 9355.0-136, EPA-540-R-2017-002.

\_\_\_\_\_, November 1996, *Using Qualified Data to Document an Observed Release and Observed Contamination*, EPA 540-F-94-028, Office of Solid Waste and Emergency Response (OSWER) 9285.7-14FS, Washington, D.C., PB94-963311.

<b>Table 1</b> <b>Analytical Results for Source 1 – Phase II Supplemental Landfill Site Investigation (Inspection) 2001/2002</b> <b>Gully Test Pit Soil Samples</b>							
Sample ID	Sample Depth (feet bgs)	Hazardous Substance	Hazardous Substance Concentration	Units (Dry weight)	MDL, MRL, or PQL	Units (Dry weight)	Reference
BIL14  011016BIL14SS	6.0	Copper	27.4 JL	mg/kg	2.06	mg/kg	Ref. 4, pp. 8619 and 138849
		Lead	57.6 JH	mg/kg	0.412	mg/kg	Ref. 4, pp. 8620 and 138849
		Mercury	0.015 JQ	mg/kg	0.0192	mg/kg	Ref. 4, p. 8621
		Nickel	34.4 JL	mg/kg	2.06	mg/kg	Ref. 4, pp. 8619 and 138849
		Toluene	0.269 JQ	ug/kg	0.424	ug/kg	Ref. 4, p. 8450
		Bis(2-ethylhexyl)phthalate	237 JQ	ug/kg	338	ug/kg	Ref. 4, p. 8474
BIL13  011016BIL13SS	4.0	Copper	312 JL	mg/kg	2.09	mg/kg	Ref. 4, p. 8616 and 138849
		Lead	488 JH	mg/kg	0.417	mg/kg	Ref. 4, p. 8617 and 138849
BIL17  011016BIL17SS	1.0	Lead	741 JH	mg/kg	0.467	mg/kg	Ref. 4, pp. 8629 and 138849
BIL 18  011016BIL18SS	2.0	Lead	1,660 JH	mg/kg	1.94	mg/kg	Ref. 4, pp. 8631 and 138849
		Nickel	1,610 JL	mg/kg	1.94	mg/kg	Ref. 4, pp. 8631 and 138849
		Chrysene	35,300 JK	ug/kg	28.9	ug/kg	Ref. 4, p. 8483 and 138848
BIL19  011016BIL19SS	5.0	Lead	931 JH	mg/kg	0.39	mg/kg	Ref. 4, pp. 8635 and 138849
		Nickel	1,760 JL	mg/kg	1.95	mg/kg	Ref. 4, pp. 8634 and 138849
BIL21  011016BIL21SS	5.0	Lead	912 JH	mg/kg	1.92	mg/kg	Ref. 4, pp. 8640 and 138849
		Nickel	684 JL	mg/kg	1.92	mg/kg	Ref. 4, pp. 8640 and 138849

**Table 1**  
**Analytical Results for Source 1 – Phase II Supplemental Landfill Site Investigation (Inspection) 2001/2002**  
**Gully Test Pit Soil Samples**

Sample ID	Sample Depth (feet bgs)	Hazardous Substance	Hazardous Substance Concentration	Units (Dry weight)	MDL, MRL, or PQL	Units (Dry weight)	Reference
Key:							
bgs	=	below ground surface.					
H	=	High bias.					
ID	=	Identification.					
J	=	The analyte was positively identified; the associated numerical value is an estimate of the concentration of the analyte in the sample (Ref. 4, p. 138850).					
K	=	Unknown bias.					
L	=	Low bias.					
MDL	=	Method detection limit.					
mg/kg	=	milligrams per kilogram.					
MRL	=	Method reporting limit.					
PQL	=	Practical quantitation limit.					
Q	=	The sample result was between the PQL and the MRL.					
ug/kg	=	micrograms per kilogram.					

**Table 2**  
**Analytical Results for Source 1 – Phase II Supplemental Landfill Site Investigation (Inspection) 2001/2002**  
**Mercury Vapor-Lamp and Lead Hot Spot Test Pit Soil Samples**

Sample ID	Sample Depth (feet bgs)	Hazardous Substance	Hazardous Substance Concentration	Units (Dry weight)	PQL	Units (Dry weight)	Reference
BIL08 011016BIL0 8SS	5.0	Copper	17.9 JL	mg/kg	2.14	mg/kg	Ref. 4, pp. 8600 and 138849
		Lead	70.7 JH	mg/kg	0.429	mg/kg	Ref. 4, pp. 8601 and 138849
BIL07 011016BIL0 7SS	5.0	Copper	120 JL	mg/kg	2.2	mg/kg	Ref. 4, pp. 8597 and 138849
		Lead	697 JH	mg/kg	0.439	mg/kg	Ref. 4, pp. 8598 and 138849
BIL09 011016BIL0 9SS	6.0	Lead	966 JH	mg/kg	0.45	mg/kg	Ref. 4, pp. 8604 and 138849
BIL24 011017BIL2 4SS	3	Lead	815 JH	mg/kg	0.452	mg/kg	Ref. 4, pp. 449, 8609, and 138849

**Table 2**  
**Analytical Results for Source 1 – Phase II Supplemental Landfill Site Investigation (Inspection) 2001/2002**  
**Mercury Vapor-Lamp and Lead Hot Spot Test Pit Soil Samples**

Sample ID	Sample Depth (feet bgs)	Hazardous Substance	Hazardous Substance Concentration	Units (Dry weight)	PQL	Units (Dry weight)	Reference
BIL26 011017BIL2 6SS	2	Lead	711 JH	mg/kg	0.399	mg/kg	Ref. 4, pp. 449, 8611, and 138849
BIL27 011017BIL2 7SS	3	Lead	954 JH	mg/kg	0.419	mg/kg	Ref. 4, pp. 449 8612, and 138849

Key:

bgs = below ground surface.  
H = High bias.  
ID = Identification.  
J = The analyte was analyzed for and positively identified, but the associated numerical value is an estimated quantity (Ref. 4, p. 8437).  
L = Low bias.  
mg/kg = milligrams per kilogram.  
PQL = Practical quantitation limit.

**Table 3**  
**Analytical Results for Source 1 – USACE Upland Source Evaluation 2007**  
**North Slope Soil Samples**

Sample ID	Sample Depth (feet bgs)	Hazardous Substance	Hazardous Substance Concentration	Units (Dry weight)	RL	Units (Dry weight)	Reference
BIL05USE 070410BIL0 5SS	0.5	Lead	49 JL	mg/kg	1	mg/kg	Ref. 4, pp. 48122, 138887, and 138890

Key:

bgs = below ground surface.  
ID = Identification.  
J = The analyte was positively identified, the associated numerical value is the approximate concentration of the analyte in the sample (Ref. 4, p. 138885).  
L = Low bias.  
mg/kg = milligrams per kilogram.  
RL = Reporting limit.

Table 4							
Analytical Results for Source 1 – Upland OU Data Gaps Report 2009							
Gully Area Soil Samples							
Sample ID	Sample Depth (feet bgs)	Hazardous Substance	Hazardous Substance Concentration	Units (Dry weight)	MRL	Units (Dry weight)	Reference
R-03  090128-R-R3-0-0.5so	0.0-0.5	Acenaphthene	3.4 JQ	ug/kg	10	ug/kg	Ref. 4, p. 137495
		Acenaphthylene	1.6 JQ	ug/kg	10	ug/kg	Ref. 4, p. 137495
		Anthracene	4.9 JQ	ug/kg	10	ug/kg	Ref. 4, p. 137495
		Fluorene	3.2 JQ	ug/kg	10	ug/kg	Ref. 4, p. 137495
		Naphthalene	2.2 JQ	ug/kg	10	ug/kg	Ref. 4, p. 137495
		Dibenz(a,h)anthracene	6.9 JQ	ug/kg	10	ug/kg	Ref. 4, p. 137495
Key:							
bgs	=	below ground surface.					
ID	=	Identification.					
J	=	The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL. (Ref. 4, pp. 136325 and 136326).					
MDL	=	Method detection limit.					
MRL	=	Method reporting limit.					
ug/kg	=	micrograms per kilogram.					

<b>Table 5</b> <b>Analytical Results for Source 2 – URS PA/SI 2001</b> <b>Sandblast Grit/Soil Samples</b>							
Sample ID	Sample Depth (feet bgs)	Hazardous Substance	Hazardous Substance Concentration	Units (Dry weight)	PQL	Units (Dry weight)	Reference
SBB18  011205SBB 20SS	2.5	Zinc	77.6 JL	mg/kg	2.68	mg/kg	Ref. 4, pp. 1490, 1731, and 138849 <sup>a</sup>
SBB03  011205SBB 03SBG	0.0 to 0.5	Lead	1,200 JH	mg/kg	0.577	mg/kg	Ref. 4, pp. 1501 and 1744
		Tributyltin	45.4 JK	ug/kg	2.64	ug/kg	Ref. 4, pp. 1256 and 1623
SBB06  011206SBB 06SBG	0.0 to 0.5	Lead	501 JH	mg/kg	0.492	mg/kg	Ref. 4, p. 1503



**Table 5**  
**Analytical Results for Source 2 – URS PA/SI 2001**  
**Sandblast Grit/Soil Samples**

Sample ID	Sample Depth (feet bgs)	Hazardous Substance	Hazardous Substance Concentration	Units (Dry weight)	PQL	Units (Dry weight)	Reference
SBB10 011205SBB10SBG	0.0 to 0.5	Lead	272 JH	mg/kg	0.534	mg/kg	Ref. 4, p. 1511
SBB11 011205SBB11SBG	0.0 to 0.5	Lead	415 JH	mg/kg	0.554	mg/kg	Ref. 4, p. 1513
SBB12 011205SBB12SBG	0.0 to 0.5	Lead	863 JH	mg/kg	0.546	mg/kg	Ref. 4, p. 1515
SBB14 011205SBB14SBG	2.0	Lead	508 JH	mg/kg	0.531	mg/kg	Ref. 4, pp. 465 and 1519
SBB15 011205SBB15SBG	0.0 to 0.5	Lead	280 JH	mg/kg	0.454	mg/kg	Ref. 4, p. 1521
SBB15 011205SBB21SS	1.0	Lead	134 JH	mg/kg	0.545	mg/kg	Ref. 4, p. 1531
SBB17 01120SBB17SBG	0.0 to 0.5	Lead	516 JH	mg/kg	0.589	mg/kg	Ref. 4, p. 1525
SBB18 01120SBB18SBG	0.0 to 0.5	Lead	258 JH	mg/kg	0.561	mg/kg	Ref. 4, p. 1527
		Dibutyltin	210 JK	ug/kg	2.08	ug/kg	Ref. 4, pp. 1271 and 1623
(cont.) SBB18 01120SBB18SBG	0.0 to 0.5	Monobutyltin	108 JH	ug/kg	2.78	ug/kg	Ref. 4, pp. 1198 and 1271
		Tributyltin	1,860 JH	ug/kg	2.78	ug/kg	Ref. 4, pp. 1198 and 1271

**Notes:**

a – It appears the sample numbered 011205SBB20SS (i.e., sample SBB18 from 0.0 to 0.5 feet bgs) was mis-reported by the laboratory as sample 011204DSH2055 based on three lines of evidence: 1) being a hand-written corrections to the sample numbers on laboratory data sheets (see Ref. 4, pp. 1253 and 1787); 2) that the date and time of sample collection for sample 011205SBB20SS provided on its COC exactly matches the date and time of sample 011204DSH2055 in the

**Table 5**  
**Analytical Results for Source 2 – URS PA/SI 2001**  
**Sandblast Grit/Soil Samples**

Sample ID	Sample Depth (feet bgs)	Hazardous Substance	Hazardous Substance Concentration	Units (Dry weight)	PQL	Units (Dry weight)	Reference
sample identification list provided by the laboratory (Ref. 4, pp. 1193 and 1787); and 3) that the results reported in Reference 4, Table 5-4d for sample 011205SBB20SS exactly match those reported for sample 011204DSH2055 in the laboratory data sheets (Ref. 4, pp. 464 and 465 [Table 5-4d]; 1253, 1336, 1490, and 1491). The hand-written sample number correction on Ref. 4, p. 1253 appears to have a transcription error as this note provides the sample number as 011205SSB20SS rather than 011205SBB20SS.							
Key:							
bgs	=	below ground surface.					
H	=	High bias.					
ID	=	Identification.					
J	=	The analyte was analyzed for and positively identified, but the associated numerical value is an estimated quantity (Ref. 4, p. 1795). For this HRS Documentation Record, estimated data is assumed to have a high bias.					
K	=	Unknown bias.					
L	=	Low bias.					
mg/kg	=	milligrams per kilogram.					
PQL	=	Practical quantitation limit (Ref. 4, p. 1795).					
ug/kg	=	micrograms per kilogram.					

**Table 6**  
**Analytical Results for Source 3 – Upland OU Data Gaps Report 2009**  
**Equipment Laydown Area Soil Samples**

Sample ID	Sample Depth (feet bgs)	Hazardous Substance	Hazardous Substance Concentration	Units (Dry weight)	MRL	Units (Dry weight)	Reference
LD-04 090320- LD4So-0-1	0.0 to 1.0	Mercury	0.017 JQ	mg/kg	0.036	mg/kg	Ref. 4, p. 131413
		Zinc	56.6 JH	mg/kg	2.2	mg/kg	Ref. 4, pp. 131413 and 131440
		4,4'-DDT	0.84 JQ	ug/kg	1.0	ug/kg	Ref. 4, p. 132267
		Acenaphthene	1.5 JQ	ug/kg	6.4	ug/kg	Ref. 4, p. 134373
		Anthracene	2.0 JQ	ug/kg	6.4	ug/kg	Ref. 4, p. 134373
LD-04 090320- LD4So-1-3	1.0 to 3.0	Zinc	50.0 JH	mg/kg	2.3	mg/kg	Ref. 4, pp. 131414 and 131440
		Bis(2-ethylhexyl)phthalate	15 JQ	ug/kg	65	ug/kg	Ref. 4, p. 134376
		Chrysene	1.8 JQ	ug/kg	6.5	ug/kg	Ref. 4, p. 134376
		Pyrene	2.1 JQ	ug/kg	6.5	ug/kg	Ref. 4, p. 134376

**Table 6**  
**Analytical Results for Source 3 – Upland OU Data Gaps Report 2009**  
**Equipment Laydown Area Soil Samples**

Sample ID	Sample Depth (feet bgs)	Hazardous Substance	Hazardous Substance Concentration	Units (Dry weight)	MRL	Units (Dry weight)	Reference
LD-02 090320- LD2So-0-1	0.0 to 1.0	Zinc	456 JH	mg/kg	2.4	mg/kg	Ref. 4, p. 131417 and 131440
		Dibenz(a,h)anthracene	640 JH	ug/kg	180	ug/kg	Ref. 4, pp. 134386 and 134414

**Key:**

bgs	=	below ground surface.
H	=	High bias.
ID	=	Identification.
J	=	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample (Ref. 4, p. 138942).
MDL	=	Method detection limit.
mg/kg	=	milligrams per kilogram.
MRL	=	Method reporting limit.
ND	=	Not detected.
PQL	=	Practical quantitation limit.
Q	=	The sample result was between the PQL and the MRL.
ug/kg	=	micrograms per kilogram.

**Table 7**  
**Analytical Results for Source 3 – URS Upland OU Data Gaps Report 2009**  
**Laydown Area Soil Samples**

Sample ID	Sample Depth (feet bgs)	Hazardous Substance	Hazardous Substance Concentration	Units (Dry weight)	MRL	Units (Dry weight)	Reference
SB-04 <250 um  090127-SB-SB4-1-3S	1.0 to 3.0	Lead	9.5 JQ	mg/kg	9.8	mg/kg	Ref. 4, pp. 514 and 135940
SB-04 <2 mm  090127-SB-SB4-1-3So	1.0 to 3.0	Lead	6.90 JQ	mg/kg	8.2	mg/kg	Ref. 4, p. 135939

**Key:**

bgs	=	below ground surface.
ID	=	Identification.

<b>Table 7</b> <b>Analytical Results for Source 3 – URS Upland OU Data Gaps Report 2009</b> <b>Laydown Area Soil Samples</b>							
<b>Sample ID</b>	<b>Sample Depth (feet bgs)</b>	<b>Hazardous Substance</b>	<b>Hazardous Substance Concentration</b>	<b>Units (Dry weight)</b>	<b>MRL</b>	<b>Units (Dry weight)</b>	<b>Reference</b>
J	=	The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL (Ref. 4, p. 135914).					
MDL	=	Method detection limit.					
mg/kg	=	milligrams per kilogram.					
mm	=	millimeters.					
MRL	=	Method reporting limit.					
PQL	=	Practical quantitation limit.					
Q	=	The sample result was between the PQL and the MRL.					
um	=	micrometers.					